

## **IN THE CLAIMS**

Claims 1-48 (canceled)

Claim 49 (presently amended) A method of screening a combinatorial library of materials for at least one physical property, comprising:

mechanically perturbing an array of a plurality of materials on a common substrate by applying a strain or a shear to ~~contacting~~ at least two of the materials simultaneously with probes;

monitoring, with a sensor, a force exerted by each of the materials in response to the mechanical perturbations, wherein the probe is located between the sensor and the material; and

relating the monitored force to at least one physical property, wherein the physical property is selected from the group consisting of flexure, uniaxial extension, biaxial compression, shear, indentation, stress and strain at failure, tack, loop tack, Young's modulus, hardness, storage modulus, loss modulus and combinations thereof.

Claim 50 (previously presented) The method of claim 49, wherein the monitoring step comprises measuring, with the sensor, forces exerted on the probes by the materials as functions of displacement of a portion of the material or displacement of the probe.

Claim 51 (previously presented) The method of claim 49, wherein the monitoring step comprises measuring, with the sensor, forces exerted on the probes by the materials as functions of time.

Claim 52 (cancelled)

Claim 53 (previously presented) The method of claim 49, wherein at least twelve materials are simultaneously mechanically perturbed.

Claim 54 (previously presented) The method of claim 49, wherein at least forty-eight materials are simultaneously mechanically perturbed.

Claim 55 (previously presented) The method of claim 49, wherein at least ninety-six materials are simultaneously mechanically perturbed.

Claims 56-58 (canceled)

Claim 59: (presently amended) The method of claim 49, wherein the probes comprise a test fixture.

Claim 60 (new)      A method of screening a combinatorial library of materials for at least one physical property, comprising:

mechanically perturbing an array of a plurality of materials on a common substrate by contacting at least two of the materials simultaneously with probes;

monitoring, with a force sensor, a force exerted by each of the materials in response to the mechanical perturbations, wherein the probe is located between the sensor and the material; and

relating the monitored force to at least one physical property.

Claim 61 (new)      The method of claim 60 wherein the force sensor is responsive to tensile or compressive loads.

Claim 62 (new)      The method of claim 60 wherein the force sensor is responsive to shear.